

23508

IN THE U.S. PATENT AND TRADEMARK OFFICE

Inventor	Henning BUCHOLD et al	
Patent App.	10/571,997	
Filed	9 March 2007	
For	INTERMEDIATE PRODUCT BASED ON THE ORGANIC CARBONATES A...	
Art Unit	1796	Examiner Godenschwager, P
Hon. Commissioner of Patents		
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Alexandria, VA	22313-1450	

#### INFORMATION DISCLOSURE STATEMENT

Attached hereto is a copy of the recently received German Office Action. Also attached are copies of those references not already of record.

Since the Office Action is more than three months old, the requisite §1.17(p) late-consideration fee is also enclosed.

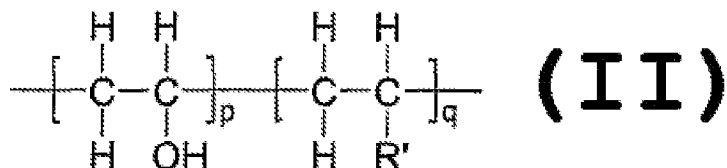
US Patent 4,156,784 is the equivalent of CH 596154.

In the official action from the German Patent Office, the citation of US Patent 4,443,621 to LA MATTINA et al is erroneous and resulted from an error in the image file of US Patent 4,443,622 to SMITH in the US Patent and Trademark Office Data Base. The correction citation is US Patent 4,443,622 to SMITH, already of record in the present application. See page 11, lines 5 to 17 of Applicants' amendment filed 28 January 2008 in this application.

The official action from the German Patent Office also includes US Patent 3,219,686; US Patent 4,459,397, and US Patent 5,489,702. Applicants have listed all of the prior art cited in the German office action not already of record in this application on Form PTO 1449 which accompanies this Information Disclosure Statement.

Applicants believe that claims 13 through 16 now presented patentably distinguish over each of US Patent 4,156,784, US Patent 3,219,686; US Patent 4,459,397, and US Patent 5,489,702. In the claims now presented, both intermediate composition and process claims, Applicants react urea, a substituted urea, a salt or ester of carbamic acid, or one of their N-substituted derivatives at a temperature of 100° C up to 270° C with a polymeric multifunctional alcohol selected from the group consisting of a

polyester polyol and a completely or partially hydrolyzed polyvinylalcohol of the Formula (II)



in which R' is an alkyl aryl, or acyl group having 1 - 12 carbon atoms, p and q are numbers between 1 and 20, or with mixtures of these compounds, without or in the presence of an ammonia splitting favorable catalyst, and which is converted to a carbonate and carbamate containing mixture. None of the four cited references discloses or suggests either a polyester polyol or a partially or completely hydrolyzed polyvinylalcohol of the Formula (II), or mixtures thereof to form a carbamate intermediate, which then forms a carbonate intermediate with liberation of ammonia.

In US Patent 4,156,784 to DOCKNER et al, and in its equivalent Swiss Patent 596,154 there is no disclosure or suggestion of the reaction of urea with either a polyester polyol or with a completely or partially hydrolyzed polyvinylalcohol of the Formula (II) according to the present invention. The reference merely discloses the reaction of a number of simple alcohols with

urea, but in no case, the particular polymeric multifunctional alcohols of the present invention.

In US Patent 3,219,686 to BEINFEST et al, there is disclosure of the reaction of urea with a simple aliphatic diol according to col. 2, line 3. Once again there is no disclosure or suggestion of the reaction of urea with either a polyester polyol or with a completely or partially hydrolyzed polyvinylalcohol of the Formula (II) according to the present invention.

In US Patent 4,459,397 to RICHARDSON et al, there is disclosure of preparing a polyether polyol by reacting a reducing sugar with propylene oxide, and reacting the polyether polyol with urea to make a polycarbamate. See claim 1 and the Detailed Description of the Invention starting at the bottom of col. 2 of the reference. Once again there is no disclosure or suggestion of the reaction of urea with either a polyester polyol or with a completely or partially hydrolyzed polyvinylalcohol of the Formula (II) according to the present invention.

In US Patent 5,489,702 to DOYA et al, there is disclosure of reacting a simple alkane diol (e.g. alkylene glycols) with urea to obtain an alkylene carbonate, and reaction of the alkylene carbonate with an alcohol to obtain a dialkylcarbonate and release of the aalkanediol. Once again there is no disclosure or suggestion of the reaction of urea with either a polyester polyol or with a completely or partially hydrolyzed polyvinylalcohol of the Formula (II) according to the present invention.

In view of the above Applicants contend that none of the prior art references cited in the German office action in the corresponding German application provides any basis to reject any claim now presented under either 35 USC 102 as anticipated or under 35 USC 103 in view of the cited prior art.

Applicants earnestly solicit favorable consideration.

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